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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,989	07/15/2003	Giora Biran	IL920000078US1	8807
54856 7590 03/29/2007 LOUIS PAUL HERZBERG 3 CLOVERDALE LANE MONSEY, NY 10952			EXAMINER NGUYEN, TANH Q	
			ART UNIT 2182	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			03/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/619,989

Applicant(s)

BIRAN ET AL.

Examiner

Tanh Q. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>01/17/07</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 1-10, 17-18, 21-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 recites a "buffer storing indications of interrupts" in line 2, "moving the contents of the buffer to the payload portion of the control data block, and sending the control data block to the host computer system" in lines 7-9. The recitations suggest that indications of interrupts are being transferred to the host computer system, yet claim 1 also recites "said apparatus for transferring interrupts from the peripheral device to a host computer" in lines 3-4. The specification does not disclose transferring interrupts and indications of interrupts to the host computer.

3. Claims 11-16, 19-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter,

which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

It appears that there is no support for "moving the contents of the buffer to the corresponding fields of the payload portion" - as page 38, lines 25-26 merely discloses "when preset conditions are met, an Interrupt Control Block (ICB) 1680 is generated by the ISOC 120 from the information stored in the interrupt FIFO 1660".

4. Claims 13-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 13 recites "at least a predetermined plurality of indications is stored in the buffer". Claim 14 recites "at least one indication is stored in the buffer". Claim 15 recites "a count indicative of the number of indications included in the payload portion". The claims suggest that interrupts and indications are two different entities, while the specification only discloses only one entity being stored in the buffer and the count being indicative of only one entity.

5. Claims 10, 22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to

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which it pertains, or with which it is most nearly connected, to make and/or use the invention. The examiner cannot find support for the limitations of the claims. In particular, it is not clear what constitute the claimed apparatus, the claimed host processing system, the claimed memory of the host processing system, the claimed data processing system, the claimed host computer, and the claimed memory of the host computer system. Applicant is required to specifically point out where to find the support for the limitations of the claims in the specification, by page and line number - and in particular, applicant is required to map out each of the elements claimed with the teachings of the specification.

6. No art rejection was made to claims 1-16, 21-22 because the scope of the claims is ambiguous, and it is not possible for the examiner to apply prior art without making a great deal of speculation.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated Raasch et al. (US 5,333,273).

9. As per claims 17, 19, Raasch teaches a computer program product (or article of manufacture) comprising a computer usable medium [138, FIG. 1] having computer

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readable program code means [BIOS: col. 5, lines 18-21] embodied therein for causing transfer of interrupts [col. 4, lines 66-68], the computer readable program code means in said computer program product (or article of manufacture) comprising computer readable program code means [BIOS: col. 5, lines 18-21] for causing a computer [100, FIG. 1] to effect the functions of the apparatus of claim 1 (or the method of claim 11) - as the BIOS would cause a computer to effect the functions of any apparatus, hence including functions of the apparatus of claim 1; and as the BIOS would cause a computer to effect the steps of any method, hence including the steps of the method of claim 11.

10. As per claim 18, Raasch teaches a computer program product comprising a computer usable medium [138, FIG. 1] having computer readable program code means [BIOS: col. 5, lines 18-21] embodied therein for causing data processing [col. 5, lines 18-31], the computer readable program code means in said computer program product comprising computer readable program code means [BIOS: col. 5, lines 18-21] for causing a computer [100, FIG. 1] to effect the functions of the apparatus of claim 10 - as the BIOS would cause the computer to effect the functions of any apparatus, hence including the functions of the apparatus of claim 10.

11. As per claim 20, Raasch teaches a program storage device [138, FIG. 1] readable by machine [100, FIG. 1], tangibly embodying a program of instructions [BIOS: col. 5, lines 18-21] executable by the machine to perform method steps for transferring interrupts [col. 4, lines 66-68], said method steps comprising the steps of claim 11 (the BIOS would cause a computer to effect the steps of any method, hence including the

steps of the method of claim 11).

### ***Response to Arguments***

12. Applicant's arguments filed January 18, 2007 have been fully considered but they are not persuasive or moot in view of the new grounds of rejections.

13. With respect to the rejections of claims 1-10, 17-18, 21-22 under 35 USC 112 first paragraph, applicant argued that the amendment to include the matter in the claims to the paragraph beginning on page 4, line 12 of the specification to meet the enablement requirement of USC 112 enables and supports "interrupts and indications of interrupts being transferred to the host computer".

The argument is not persuasive because applicant included essentially the same matter in the claims, but the matter was still not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification discloses a FIFO buffer [1660, FIG. 17] storing completion event indications, and when a preset condition is met, an Interrupt Control Block (ICB) is generated by the ISOC 120 from the information stored in the interrupt FIFO 1660. The ICB is then transferred to the memory 60 of the host 10 [page 38, line 21-page 39, line 2]. The specification therefore suggests that only the ICB is sent to the host. The interrupts and the indications of interrupt are not sent to the host. It is not clear to one of ordinary skill in the art **how** the apparatus transfers interrupts to the host, and it is not even clear how the apparatus transfers indications of interrupts to the host.

Note that while matter in the claims are considered part of the disclosure, the matter in the claims **must be consistent** with the other parts of the disclosure, and the matter in the claims **must also be enabled** by the other parts of the disclosure.

Applicant is required to provide support indicating **how** the apparatus transfers interrupts to the host, and **how** the apparatus transfers indications of interrupts to the host.

14. With respect to the rejections of claims 11-16, 19-20 under 35 USC 112 first paragraph, applicant argued that the amendment to include the matter in the claims to the paragraph beginning on page 4, line 12 of the specification to meet the enablement requirement of USC 112 enables and supports “the contents of the buffer are moved to corresponding fields of the payload portion”.

The argument is not persuasive because applicant included essentially the same matter in the claims, but the matter was still not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification discloses a FIFO buffer [1660, FIG. 17] storing completion event indications, and when a preset condition is met, an Interrupt Control Block (ICB) is generated by the ISOC 120 from the information stored in the interrupt FIFO 1660. The ICB is then transferred to the memory 60 of the host 10 [page 38, line 21-page 39, line 2]. The specification also discloses “the payload portion comprises a plurality of fields each containing the identity of the LCP channel that indicated the completion event [page 40, lines 3-5]. It is not clear that the contents of the buffer are moved to the



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corresponding fields of the payload portion of the control data block. Rather, it appears that the ICB is generated from the information in the buffer.

Note that while matter in the claims are considered part of the disclosure, the matter in the claims **must be consistent** with the other parts of the disclosure, and the matter in the claims **must also be enabled** by the other parts of the disclosure.

Applicant is required to provide support indicating **how** the controller of the apparatus moves the contents of the buffer to the corresponding fields of the payload portion of the control data block.

15. With respect to the rejections of claims 13-15 under 35 USC 112 first paragraph, applicant argued that the limitations of claims 13-15 are supported by the specification.

The argument is misplaced because claim 11 recites “storing **interrupts** in a buffer” in line 4 (i.e. indications of interrupts are not stored in the buffer), while claim 13 recites “at least a predetermined plurality of **indications** is stored in the buffer”, claim 14 recites “at least one **indication** is stored in the buffer”, and claim 15 recites “a count indicative of the number of **indications** included in the payload portion”.

16. With respect to the rejections of claims 10, 22 under 35 USC 112 first paragraph, applicant argued that the limitations of claims 10, 22 are supported by the specification in the paragraph beginning on page 5, line 8.

The argument is not persuasive because the cited section discloses the data processing system comprising a host processing system having a memory, a data communications interface,..., and the apparatus (i.e. the apparatus being part of a data

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processing system and the apparatus not comprising a host processing system having a memory, or a data communications interface). The claims, however suggest that the host processing system having the memory, the data communications interface,...,being part of the apparatus of claim 1. Furthermore, the specification appears to use "host processing system" and "host computer system" interchangeably. Applicant needs to identify the host processing system and the host computer system if they indeed represent two different entities by labels in the drawings, or page and line numbers in the specification.

17. With respect to the Response to Arguments, applicant argues the following:

*Particular elements not described are implemented as known to those skilled in the art. It is probably not a failure for the Examiner to understand the invention as described for lack of a broader description, but may be rather because of specific understanding of particular parts of the novelty of the claimed invention which are different than prior implementations. Thus, the understanding may be proper noting the novelty. The invention may be implemented by one skilled in art as described in the specification.*

The examiner is not exactly clear as to what applicant is arguing. It appears that applicant argues that anything not disclosed is known by one of ordinary skill in the art. If that is the case, applicant needs to indicate what elements/steps are known to one of ordinary skill in the art, provide evidence that such elements/steps are known in the art, and why (or how) it would have been obvious to one of ordinary skill in the art to implement such elements/steps in applicant's invention.

Note further that a specification that is ambiguous about the presence or absence of a claimed limitation cannot be considered to teach the existence of the claimed limitation.

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18. In addition, to help the examiner better understand the scope of the claimed invention and further the prosecution, the examiner requests that applicant identify - by reference to labels in the drawings, and/or page and line numbers in the specification - the following elements and/or steps:

elements: apparatus, buffer, indications of interrupts, plurality of ports, peripheral device, host computer system, controller (in claim 1); communications device (in claims 8-9); data communications network interface (in claims 9-10); host processing system, data processing system (in claim 10)

steps: the apparatus transferring interrupts, moving the contents of the buffer to the payload portion of the control data block (claim 1); storing interrupts, moving the contents of the buffer to the corresponding fields of the payload portion (in claim 11).

### ***Conclusion***

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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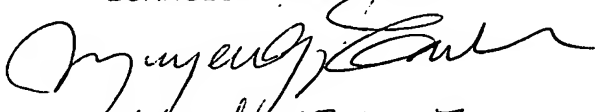
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanh Q. Nguyen whose telephone number is 571-272-4154. The examiner can normally be reached on M-F 9:30AM-7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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March 17, 2007

TQN  
March 17, 2007